

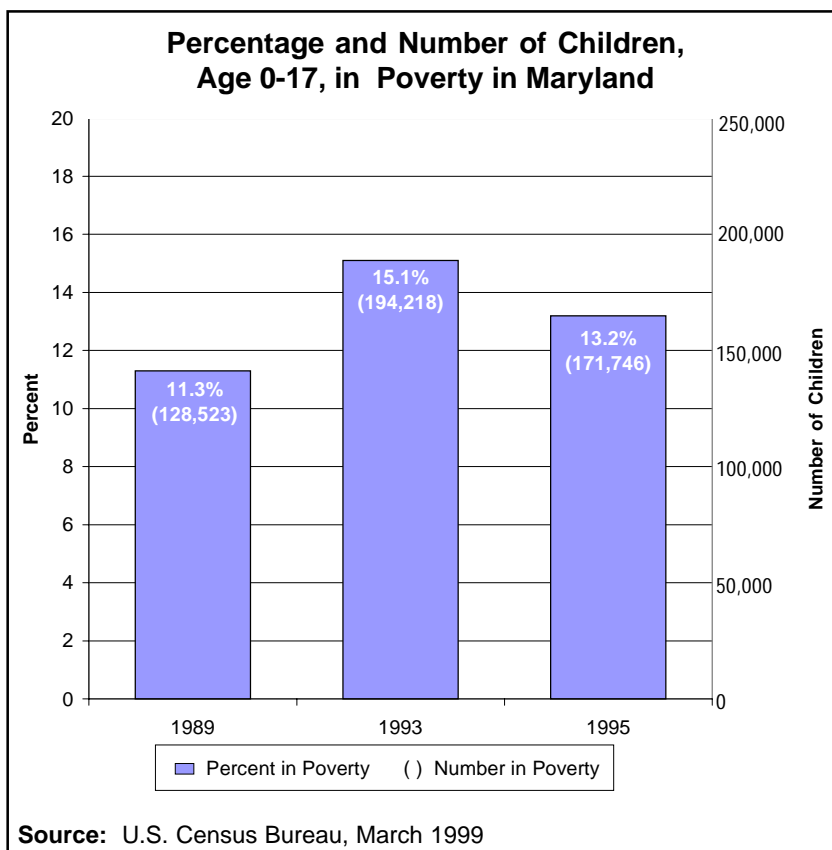


# CHILD AND ADOLESCENT HEALTH

## Overview

Maryland's 1.4 million children and adolescents are its most important and precious resource. During the late 1990s, several reports documented improvements in the health of Maryland's children, such as declining teen pregnancy rates and increasing immunization rates. There is every reason to expect that most of Maryland's children will grow up to become healthy and productive members of society. However, available data also suggest there are troubling trends and challenges that could block the attainment of a healthy future for many of Maryland's children and adolescents. Most at risk are children who grow up in poor, minority, and disadvantaged families and communities.

In the *1999 Kids Count Data Book* published by the Annie E. Casey Foundation, Maryland, one of the nation's wealthiest states, ranked 24<sup>th</sup> on 10 indicators of child well-being. At least 12% of Maryland's children were defined to be living in families at high risk for future failure as measured by six indicators including poverty and lack of health insurance coverage. According to the U.S. Census Bureau, 13.2% of Maryland children and adolescents, ages birth to 17 years, lived in poor families in 1995. Poverty among Maryland children and adolescents increased by 17% between 1989 and 1995. The poverty rate among African-American and Hispanic children in Maryland was two to three times the rate for white children. The consequences of child poverty are severe. Poor children are known to have higher death rates, increased chronic diseases such as asthma, and less access to health care services. Approximately 13% of Maryland children and adolescents were uninsured in 1997. Uninsured children are less likely to have access to a medical home, and less likely to use health services.



Morbidity and mortality indicators provide a snapshot view of the health status of children and adolescents in Maryland. In 1997, 230 Maryland children between the ages of 1 and 14 died. Injuries, many of them preventable, were the leading cause of death for this age group followed by cancer. There were 248 deaths to Maryland adolescents ages 15 to 19 in 1997. Injuries, homicide, suicide, and motor vehicle accidents were the primary causes of these adolescent deaths. Two environmentally-linked health conditions, asthma and lead poisoning, are major causes of childhood morbidity. According to the American Academy of Pediatrics, obesity and obesity-related illnesses, such as diabetes, are increasing among children and adolescents. In addition, there are a number of psycho-social and behavioral issues that determine the health of children and adolescents. These include mental and emotional disorders, crime, violence, risky behaviors such as substance use, and sexual activity.

The following pages identify five of the major health challenges confronting Maryland children, adolescents, and families in the new millennium. It is by no means an exhaustive list, but rather meant to focus attention on several high priority problems and goals believed to be of prime importance in improving the health of Maryland's children and adolescents.

Additional health issues and concerns that are germane to improving the health of children and adolescents are covered in other sections of the HIP. These areas include Infant Mortality, Infrastructure Activities, Injuries, Mental Health Issues, Oral Health, and Substance Abuse.

## **Partners**

Note: The following list is not exhaustive, but includes several of the major partners in Maryland working to improve the health of adolescents and children as discussed in the five modules included in this section.

American Lung Association of Maryland • Center for Maternal and Child Health, DHMH • Johns Hopkins University • Maryland Association of County Health Officers • Maryland Chapter of American Academy of Pediatrics • Maryland Department of the Environment • Maryland Department of Health and Mental Hygiene (DHMH) • Maryland Department of Housing • Maryland Department of Human Resources • Maryland Hospital Association • Maryland Local Health Departments • Maryland Local Management Boards • Maryland Medical Assistance Program, DHMH • Maryland Office of Children, Youth, and Families • Maryland State Department of Education • University of Maryland Health Systems

## Focus Area 1 - Preventing Asthma

### Problem

Asthma is a chronic inflammatory lung disease characterized by recurrent episodes of breathlessness, wheezing, coughing and chest tightness. According to the Centers for Disease Control and Prevention (CDC), approximately 7.3% of U.S. children were affected by asthma in 1995. Applying national prevalence rates to Maryland, an estimated 95,000 Maryland children and adolescents have asthma. National survey data indicate that the number of children with asthma in the U.S. has more than doubled in the past 15 years. Respiratory conditions including asthma are one of the highest ranked causes of pediatric hospitalizations in Maryland. The American Lung Association notes that asthma is one of the most common chronic illnesses of childhood and the number one cause of school absenteeism. In a 1996 Department of Health and Mental Hygiene (DHMH) survey to determine the special health care needs of school-aged children in Maryland, asthma was the most frequently identified health condition.

Nationally, the number of deaths, hospitalizations and emergency room visits attributed to asthma has been increasing. The incidence of new asthma cases is highest among children younger than five years of age. A number of factors are thought to have led to rising asthma prevalence, morbidity, and mortality rates. These include: limited access to quality care; lack of asthma management skills among providers, patients and families; increasing exposure to environmental allergens and irritants; and changes in diagnostic practices, medical coding, and reimbursement procedures.

**Asthma Hospitalization Rates for Children ages 0-14 by Race in Maryland, 1997**

<u>Age/Race</u>	<u>Number of Discharges</u>	<u>Population*</u>	<u>Rate/10,000</u>
All Children, 0-14	3,366	1,076,029	31.3
0-4	1,874	347,725	53.9
5-14	1,492	728,304	20.5
African-American Children, 0-14	2,015	339,828	59.3
0-4	1,058	112,815	93.8
5-14	957	227,013	42.2
White Children, 0-14	1,242	686,551	18.1
0-4	737	217,765	33.8
5-14	505	468,786	10.8

**Source:** Discharges – Unpublished data derived from the Maryland Health Services Cost Review Commission discharge file for 1997 and compiled by the DHMH Office of Public Health Assessment.

\*U.S. Census Bureau/NCI/Health Statistics, estimates, July 1, 1997.

Asthma is a controllable disease whose severity can be reduced through the use of medications and by controlling exposure to environmental triggers. The National Institutes of Health (NIH) has developed clinical practice guidelines for the diagnosis and management of asthma. Although effective preventive therapies for the control of asthma are now available, many children with asthma continue to receive episodic care from providers who are either unaware of or fail to follow NIH guidelines. The NIH has also stressed the importance of asthma education for both patients and health professionals as a means to improve health outcomes for asthma.

## **Determinants**

Childhood asthma is a disorder with genetic predispositions and a strong allergenic component. According to the American Lung Association, approximately 75% to 80% of children with asthma have significant allergies. Major allergens include dust mites, pet dander, molds, and cockroach excrement. Exposure to passive tobacco smoke contributes to the onset of asthma early in life and is a risk factor for asthma morbidity. Children with asthma who are exposed to passive tobacco smoke have been shown to have increased emergency room visits, impaired lung function, and a higher requirement for medications. Other asthma triggers include outdoor air pollution and upper respiratory viral infections.

## **Health Disparities**

Nationally, the death rate from asthma in African-American children is four times the rate in white children. In 1997, Maryland's asthma hospitalization rate was 32 per 10,000 for children ages birth to 14 years. The hospitalization rate for asthma in African-American children (60 per 10,000) was more than three times the rate in white children (18 per 10,000).

Asthma morbidity and mortality disproportionately affect poor children living in the inner cities of urban areas. Allergens associated with dust mites and cockroaches play important roles in asthma morbidity among inner city children who are chronically exposed to these agents. Other contributors to higher rates in inner city areas include less access to appropriate health care resulting in inadequate preventive care for asthma management, and a lack of asthma knowledge and management skills among families and primary health care providers.

**Objective 1** - By 2010, reduce asthma morbidity as measured by a reduction in the asthma hospitalization rate for children ages 0 to 14 to no more than 25 per 10,000. (Maryland Baseline: 32 per 10,000 in 1997)

### **Action Steps**

- ⇒ Implement a multi-media campaign to raise public awareness, understanding, and preventative measures for asthma and asthma triggers for children.
- ⇒ Distribute copies of updated National Institute of Health (NIH)/National Asthma Education and Prevention Program (NAEPP) asthma guidelines to Maryland primary health providers involved with children.

- ⇒ Work with the American Academy of Pediatrics and other groups to assess and monitor use of NIH asthma management guidelines by providers. Promote the use of the NIH asthma guidelines for children.
- ⇒ Implement school-based asthma education programs to educate patients, families and schools to better manage asthma according to current guidelines. Target school-based and other educational programs to communities at highest risk.
- ⇒ Convene a strategic planning group to design and implement a statewide asthma surveillance system.
- ⇒ Promote coordination and partnership among the organizations and systems that address the causes, prevention, and management of asthma in children.